

REMARKS

The claims are amended herein to place this application in form for allowance.

Claims 15-32, 36-38 and 41-54 are pending and under examination. Claims 15, 17, 24-31, 36-38, 41, 45, and 47-53 have been amended, claim 18 has been canceled, and new claims 55-78 have been added.

Claims 24 and 45 have been amended to correct grammatical errors. Claims 25-31, 36-38, and 47-53 have been amended to correct antecedent basis in view of amendments made to claims from which they depend. Exemplary support for the remaining amendments (to claims 15, 17, and 41), and for new claims 55-78, is outlined in the following table:

Claim No.	Support In Specification
15	Paragraph 15, paragraph 16, paragraph 21, paragraph 33, paragraph 36
17	Paragraph 21
41	Paragraph 15, paragraph 16, paragraph 21, paragraph 36, paragraph 53
55	Claim 6 as filed
56	Paragraph 36
57	Claim 6 as filed
58	Paragraph 102
59	Paragraph 47
60	Paragraph 102
61	Paragraph 47
62	Paragraph 43
63	Claim 33 as filed; paragraph 145
64	Claim 33 as filed; paragraph 145
65	Claim 10 as filed; paragraph 16; paragraph 36
66	Claim 10 as filed; paragraph 16; paragraph 36
67	Claim 10 as filed; paragraph 16; paragraph 36
68	Claim 10 as filed; paragraph 16; paragraph 36
69	Paragraph 43, paragraph 46
70	Paragraph 43, paragraph 46
71	Paragraph 43, paragraph 46
72	Paragraph 43, paragraph 46
73	Paragraph 33
74	Paragraph 16
75	Paragraph 56
76	Paragraph 56
77	Paragraph 15, paragraph 16, paragraph 21, paragraph 36, paragraph 53
78	Paragraph 15, paragraph 144

It is believed that no new matter is added by the amendments made herein. Following entry of the amendments, claims 15-17, 19-32, 36-38, and 41-78 will be pending in the present application.

The Rejections Under 35 U.S.C. § 103 Should Be Withdrawn

All claims are subject to three grounds of rejection under 35 U.S.C. § 103(a), as obvious over Kamo, JP 05211883 A ("Kamo") in combination with (1) U.S. Patent No. 6,268,428 to Mitchinson et al. ("Mitchinson"); (2) U.S. Patent No. 6,407,046 to Fowler et al. ("Fowler"); or (3) U.S. Patent No. 6,352,841 to Lehmbeck ("Lehmbeck").

As discussed in the Amendment dated July 7, 2008, Kamo discloses a transglycosylation reaction using *Aspergillus* beta-glucosidase to produce sophorose from glucose, and then refines the resulting sophorose. This refined sophorose is then added to *Trichoderma* to promote cellulase production.

The predicate of all three rejections is that (1) the claims encompass methods in which the inducing feed undergoes a purification step to remove non-reacted glucose and/or (2) Kamo's methods may not entirely remove all unreacted glucose, such that the refined sophorose generated by Kamo will have a similar amount of glucose as inducing feed generated by the claimed methods.

First, Applicants have amended the claims to clarify that the inducing feed is not subject to a purification step, e.g., to remove glucose, prior to its addition to a cell culture to induce protein expression. Applicants also note that, as explained in Example 5, there is an equilibrium between sophorose and glucose in a transglycosylation reaction, such that 100% of the glucose does not get converted to sophorose. Thus, when a transglycosylation reaction occurs in solution comprising glucose and cellulose, there always will be non-transglycosylated glucose in the resulting inducing feed.

Accordingly, an inducing feed as claimed herein will necessarily contain glucose when added to a cell culture to induce gene expression. The Examiner has not provided any rationale as to why Kamo's refined sophorose product would have the same amount of glucose as an inducing feed as claimed herein.

In view of the foregoing, it is submitted that Kamo does not teach a feature common to all claims: the use of an inducing feed containing both glucose and sophorose, and which has

not undergone a purification step, to induce gene expression. Rather, Kamo's focus on the necessity of a purification step teaches away from the claimed methods. None of Mitchinson, Fowler or Lehmbeck remedy the deficiencies of Kamo.

Accordingly, it is submitted that the rejection of the claims under 35 U.S.C. § 103 as obvious over Kamo in combination with Mitchinson, Fowler or Lehmbeck has been obviated and should be withdrawn.

The Rejections Under 35 U.S.C. § 112, First Paragraph, for Lack of Written Description Should Be Withdrawn

Claims 41-54 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

According to the examiner, the claims are directed to methods of producing protein and contain one active step (contacting a cell with a solution comprising glucose and a cellulase preparation that has been incubated for 8 hours to 500 hours at 50°C to 70°C), with the specification being silent regarding the components present in the inducing feed end-product and the times and temperatures required to obtain an inducing feed comprising with certain components other than gentiobiose and sophorose. The Examiner alleges that the claims are directed to encompass any solution fed to a microorganism that causes or induces the production of a desired protein product. See Office Action at page 10.

Without agreeing with the Examiner, and merely to expedite prosecution, Applicants have amended independent claim 41 (and therefore claims 42-54 that ultimately depend from claim 41) to specify that the protein of interest is encoded by a nucleotide sequence operatively linked to a sophorose- or gentiobiose-inducible promoter, and also to specify the amount of glucose, the cellulase preparation, and the beta-glucosidase activity in the solution that is incubated to produce an inducing feed.

Applicants note that the Examiner concedes on page 10 of the Office Action that the specification provides written description support for an inducing feed with sophorose and gentiobiose. Accordingly, it is submitted that the amendments made herein render moot the rejection under 35 U.S.C. § 112, first paragraph, for lack of written description. Thus, the rejection should be withdrawn.

Conclusion

Applicants believe that the pending claims are in condition for allowance. The issuance of a formal Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (650) 846-7614.

Respectfully submitted,

Date: July 6, 2009

/Michael F. Kolman/

Michael F. Kolman
Registration No. 54,234

Danisco US Inc., Genencor Division
925 Page Mill Road
Palo Alto, CA 94304-1013
Tel.: (650) 846-7500, Ext. 7614
Fax: (650) 845-6504